WHAT IS CLAIMED IS:

1. A disk drive comprising:

a disk-shaped recording medium for perpendicular magnetic recording, which includes a soft magnetic layer and a magnetic recording layer provided on the soft magnetic layer; and

a magnetic head which includes a main magnetic pole for generating a recording magnetic field extending perpendicular to the magnetic recording layer and a return yoke for forming a magnetic path which guides, through the soft magnetic layer, a magnetic flux driving from the recording magnetic field generated by the main magnetic pole, said return yoke having a center part and an edge which opposes a surface of the disk-shaped recording medium and which is so shaped that a ratio of the field intensity at that edge to the intensity of the magnetic field generated by the main magnetic pole is equal to or less than a predetermined value for suppressing a side writing caused by an intense magnetic field emanating from the edge of the return yoke.

2. The disk drive according to claim 1, wherein said edge of the return yoke has a surface which is opposite the surface of the disk-shaped recording medium, which has an area smaller than any other surface and which therefore helps to suppressing a side writing caused by an intense magnetic field

emanating from the edge of the return yoke.

3. The disk drive according to claim 1, wherein said edge of the return yoke is so shaped that the edge is more spaced than the center part from a track which is formed on the surface of the disk-shaped recording medium.

4. The disk drive according to claim 1, wherein the return yoke is so shaped that first distance between the edge and the main magnetic pole is more than second distance between the center part and the main magnetic pole.

5. The disk drive according to claim 1, wherein said edge of the return yoke is so shaped that the distance between any part and the main magnetic pole is proportional to the distance between the part and the surface of the disk-shaped recording medium.

6. The disk drive according to claim 1, wherein the magnetic head further includes a write shield which opposes the return yoke across the main magnetic pole and which has an edge opposing a surface of the disk-shaped recording medium and so shaped that a surface which is opposite the surface of the disk-shaped recording medium has an area smaller than any other surface.

7. The disk drive according to claim 6, wherein said edge of the write shield is so shaped that the edge is more spaced than the center part from a track

which is formed on the surface of the disk-shaped recording medium.

8. The disk drive according to claim 6, wherein the write shield is so shaped that first distance between the edge and the main magnetic pole is more than second distance between the center part and the main magnetic pole.

9. The disk drive according to claim 6, wherein said edge of the write shield is so shaped that the distance between any part and the main magnetic pole is proportional to the distance between the part and the surface of the disk-shaped recording medium.

10. The disk drive according to claim 1, wherein the magnetic head further includes a write shield which opposes the return yoke across the main magnetic pole; return yoke has an edge opposing a surface of the disk-shaped recording medium and so shaped that a surface substantially parallel to the surface of the disk-shaped recording medium has an area smaller than any other surface; and the write shield has an edge opposing a surface of the disk-shaped recording medium and so shaped that a surface substantially parallel to the surface of the disk-shaped recording medium has an area smaller than any other surface.

11. A magnetic head for use in a disk drive that uses a disk-shaped recording medium for perpendicular magnetic recording, which includes a soft magnetic

layer and a magnetic recording layer provided on the soft magnetic layer, said magnetic head comprising:

a read-head element which detects a magnetic flux from the magnetic recording layer, said magnetic flux corresponding data recorded by means of perpendicular magnetic recording;

a write-head element which is spaced from the read-head element and which includes a main magnetic pole for generating a recording magnetic field extending perpendicular to the magnetic recording layer and a return yoke for forming a magnetic path which guides, through the soft magnetic layer, a magnetic flux driving from the recording magnetic field generated by the main magnetic pole, said return yoke having a center part and an edge which opposes a surface of the disk-shaped recording medium and which is so shaped that a ratio of the field intensity at that edge to the intensity of the magnetic field generated by the main magnetic pole is equal to or less than a predetermined value for suppressing a side writing caused by an intense magnetic field emanating from the edge of the return yoke.

12. The magnetic head according to claim 11, wherein said edge of the return yoke has a surface which is opposite the surface of the disk-shaped recording medium, which has an area smaller than any other surface and which therefore helps to suppressing

a side writing caused by an intense magnetic field emanating from the edge of the return yoke.

13. The magnetic head according to claim 11, wherein said edge of the return yoke is so shaped that the edge is more spaced than the center part from a track which is formed on the surface of the disk-shaped recording medium.

14. The magnetic head according to claim 11, wherein the return yoke is so shaped that first distance between the edge and the main magnetic pole is more than second distance between the center part and the main magnetic pole.

15. The magnetic head according to claim 11, wherein said edge of the return yoke is so shaped that the distance between any part and the main magnetic pole is proportional to the distance between the part and the surface of the disk-shaped recording medium.

16. The magnetic head according to claim 11, further including a write shield which opposes the return yoke across the main magnetic pole and which has an edge opposing a surface of the disk-shaped recording medium and so shaped that a surface which is opposite the surface of the disk-shaped recording medium has an area smaller than any other surface.

17. The magnetic head according to claim 16, wherein said edge of the write shield is so shaped that the edge is more spaced than the center part from

a track which is formed on the surface of the disk-shaped recording medium.

18. The magnetic head according to claim 16, wherein the write shield is so shaped that first distance between the edge and the main magnetic pole is more than second distance between the center part and the main magnetic pole.

19. The magnetic head according to claim 16, wherein said edge of the write shield is so shaped that the distance between any part and the main magnetic pole is proportional to the distance between the part and the surface of the disk-shaped recording medium.

20. The magnetic head according to claim 11, which further includes a write shield which opposes the return yoke across the main magnetic pole, said edge of the return yoke is so shaped that a surface which is substantially parallel to the surface of the disk-shaped recording medium and which has an area smaller than any other surface, and the write shield has an edge opposing a surface of the disk-shaped recording medium and so shaped that a surface substantially parallel to the surface of the disk-shaped recording medium has an area smaller than any other surface.